

SPEED LIMITING FOR ROTARY DRIVEN SPRINKLER

ABSTRACT OF THE DISCLOSURE

A speed limiting mechanisms for turbine-driven fluid distribution apparatus usable with compressible fluid such as compressed air and incompressible fluid such as water. Dynamic viscous damping of the turbine output power train is used to control the rotational speed of the turbine. This prevents overspeeding when the turbine is air driven, and also when the turbine is water driven, under abnormal conditions such as blockage of a bypass area designed to control the turbine speed by limiting flow to the turbine. The same mechanism can be used to impose a lower rotational speed in the turbine during normal operation in conjunction with a turbine optimized for lower speed operation to reduce the required gear reduction in the power train.